

REMARKS

This paper is in response to the Office Action mailed May 18, 2004. By this paper, claims 1, 4-11 and 14 are amended, claim 13 is cancelled without prejudice, and claims 16-20 are added. Accordingly, claims 1-12 and 14-20 are pending upon entry of this amendment.

Applicant wishes to thank the Examiner for indicating that claims 3-9, 14 and 15 have been determined to be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims. Claim 14 has been rewritten in independent form and new claim 16 has been added which corresponds to claim 3 rewritten in independent form. These claims are now believed to be in condition for allowance.

Amendments to the Drawings

Applicants submit herewith the attached replacement sheets of drawings to replace the Figures 3, 13 and 15 submitted with Applicants response to the Notice to File Correction Application Papers filed on February 10, 2004.

In amended Figure 3, the previously omitted reference numbers 16, 20, 48 and 49 have been added. These elements are clearly labeled in the exploded view in Fig. 4. Applicants submit that no new matter has been added by this amendment.

In amended Figure 13, the receiving means 284 and the lead line pointing thereto have been amended to match the informal drawing submitted with the application. Applicants submit that no new matter has been added by this amendment.

In amended Figure 15, a lead line to the starter dog 270 has been added and the starter dogs are correctly shown in the second position 288 to match the informal drawing submitted with the application and the description on page 11, lines 29-30. Applicants submit that no new matter has been added by this amendment.

Response to Rejection of Claim 10

Claim 10 currently stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claim 10 to more clearly describe the retaining means. Applicants submit that the cited art does not show a retaining means as

required by claim 10. Accordingly, claim 10 is not anticipated by or made obvious by the cited reference and favorable consideration of claim 10 is respectfully requested. Claims 11-12, depending directly or indirectly from claim 10, are submitted as patentable over the cited references for at least the same reasons.

Response to Rejection of Claim 1-2

Claim 1 in the application stands rejected as being anticipated by Uhl (U.S. Patent No. 5,287,832). Claim 1 is directed to a starter mechanism adapted to be connected to the crankshaft of an internal combustion engine for starting the engine. The starter mechanism includes a starter housing, a pulley configured to be rotated within said housing by means of a pull rope, and an arbor. A spring operatively connects to the pulley and the arbor such that rotation of the pulley is transmitted to the arbor by the spring. An engagement mechanism operatively connects to the arbor and is also adapted to be operatively attached to the associated engine crankshaft to rotate the crankshaft to start the engine.

As is well understood in the art, the engine has a compression stroke that provides an impeding compression force that impedes the rotation of the crankshaft. In the current invention, this compression force is stronger than a force initially supplied by the starter mechanism.

The starter mechanism is configured to accumulate sufficient energy to start the engine because the pulley is able to rotate more than one complete revolution with respect to the arbor so as to accumulate energy in the second spring. More particularly, when the pulley is rotated to start the engine, the compression force of the engine initially impedes rotation of the arbor causing the pulley to rotate more than one complete revolution with respect to the arbor after the crankshaft reaches the compression stroke. This rotation causing the spring to wind and accumulate sufficient energy therein to start said engine such that when the spring overcomes the compression force, the arbor rotates multiple times to start the engine.

Claim 1, as amended, is novel and patentable over the references of record, and particularly over Uhl, because the cited art does not show or suggest a starter mechanism for starting an engine having a pulley that is able to rotate more than one complete revolution with respect to the arbor, such rotation causing the second spring to wind and accumulate sufficient

energy therein such that when the second spring overcomes the compression force, the arbor rotates multiple times to start the engine as required by claim 1.

Uhl discloses a starting device for an internal combustion engine that dampens out the forces felt by the person starting the engine. The Uhl device has a clutch drum 6 and a carrier 10 connected by a spring 14. However, the clutch drum 6 has a stop 27 formed at the outer flange thereof and the carrier 10 has a corresponding counter stop 28 formed thereon. The stops 27 and 28 "limit the relative movement between the clutch drum 6 and the catch carrier 10." ('832 patent, col. 5, lines 21-23). Thus, the cited reference teaches away from the current invention in that the maximum possible relative rotational movement between the drum and carrier is clearly limited to less than one complete rotation. Therefore, the Uhl device is designed to act as a force dampener and cannot accumulate sufficient energy in the spring to start the engine. Clearly, Uhl fails to teach or suggest the claimed starter mechanism having a pulley that is able to rotate more than one complete revolution with respect to the arbor, such rotation causing the second spring to wind and accumulate sufficient energy therein such that when the second spring overcomes the compression force, the arbor rotates multiple times to start the engine as required by claim 1.

Accordingly, claim 1 is patentable over the cited art and prompt allowance of the claim is respectfully requested. Independent claim 10 contains a similar limitation and is therefore likewise patentable over the cited art. Claims 2, 11 and 12, depending directly or indirectly from one of claims 1 or 10, are submitted as patentable over the cited references for at least the same reasons.

Conclusion

In view of the amendments and remarks made herein, Applicant submits that the claims presented herein are patentably distinguishable from the art applied and prompt allowance of the application is respectfully requested.

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Should the Examiner determine that anything else is desirable to place this application in even better form for allowance, the Examiner is respectfully requested to contact the undersigned by telephone.

Respectfully Submitted,
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